

## **Appendix 5**

North Country Gold Corp. Spill Prevention and Response Plan

*Updated November 2012*



## **Spill Prevention and Response Plan**

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## **1.0 INTRODUCTION**

The North Country Gold Corp. (NCG) Spill Prevention and Response Plan (SPRP) shall be in effect from February 1, 2003 to February 2015.

This Spill Prevention and Response Plan will be posted at all operational remote sites where fuel, oil, lubricants, and all other hazardous materials are stored.

NCG endeavors to take every reasonable precaution toward ensuring the protection and conservation of the natural environment, the safety and health of NCG employees, sub-contractors and contractors and (protecting) the community (at large) from any harmful effects of its materials and operations.

### **1.1 PURPOSE**

The overall purpose of the SPRP is to mitigate, to the fullest extent possible, the risk of environmental contamination from the accidental release of deleterious materials by providing clear procedures for their storage and handling as well as clear plans of action in the case of such a release.

The Spill Prevention and Response Plan will:

- Promote the safe and careful use of potentially hazardous materials;
- Promote the safe and effective recovery of spilled potentially hazardous materials;
- Minimize the environmental impacts of spills to water or land;
- Provide site-specific information on the facilities and contingencies in place;
- Identify roles, responsibilities, and reporting procedures for spill events;
- Provide readily accessible emergency information to cleanup crews, management and government agencies, and;
- Comply with federal and territorial regulations and guidelines pertaining to the preparation of contingency plans and notification requirements in the event of an emergency or spill.

### **1.2 ENVIRONMENTAL POLICY**

The present SPRP has been prepared in accordance with the commitments made in NCG'S environmental policy (see Corporate and Social Responsibility Plan), which are to:

- Assess the potential environmental impacts of any new undertaking with an objective to minimize adverse impacts;
- Design and operate facilities to ensure that effective controls are in place to minimize risks to health, safety and the environment;
- Implement an emergency response plan to minimize the impacts of unforeseen events;
- Provide a professional workplace for staff to plan and direct environmental compliance programs and to assist in training and education activities;
- Provide training and resources that help to develop a culture of compliance for both safety and environment for employees;

- Ensure that environmental factors are included in the purchase of equipment and materials;
- Ensure that contractors operate according to the company's environmental policy and procedures and are aware of applicable laws, regulations and the terms and conditions of permits and licences;
- Comply with all applicable environmental laws and regulations;
- Communicate with employees, the public, government agencies and other stakeholders on activities involving health, safety and the environment;
- Regularly verify environmental performance and implement any required corrective action;
- Minimize the generation of hazardous, as well as non-hazardous, waste and ensure proper disposal of all waste materials;
- Implement measures to conserve natural resources such as energy and water, and;
- Rehabilitate sites in accordance with regulatory criteria and within established time-frames.

## 2.0 FACILITIES

North Country Gold Corp operates 4 camps, 2 fuel caches, and a number of drill sites along the Committee Bay Belt (Table 1).

Hayes camp is the main camp in the area and is supported by a natural esker airstrip and a prepared winter ice strip on Sandspit Lake located next to the camp. Bullion, Ingot and Crater camps are smaller camps used as bases for seasonal exploration in various parts of the area. Drill sites are located in geologically favorable various parts of the area where small amounts of drill equipment and/or fuel may be temporarily stored for future use (small remote fuel caches). Camp Layouts are detailed in Appendix 1.

Table 1. North Country Gold Corp. camp and cache locations.

CAMPS	Easting or Latitude	Northing or Longitude
<i>Hayes Camp</i>		
UTM (Nad83 z15)	564613	7394173
Lat/Long	66°39'30"	91°32'11"
<i>Bullion Camp</i>		
UTM (Nad83 z15)	494850	7363850
Lat/Long	66°23'39"	93°06'55"
<i>Ingot Camp</i>		
UTM (Nad83 z15)	516500	7386100
Lat/Long	66°35'40"	92°37'34"
<i>Crater Camp</i>		
UTM (Nad83 z15)	677781	7478788
Lat/Long	67°22'19"	88°51'24"
<i>Three Bluffs Drill Grid</i>		
UTM (Nad83 z15)	569153	7392660
Lat/Long	66°38'42"	91°26'12"
<i>Ibex Cache</i>		

UTM (Nad83 z15)	493060	7342810
Lat/Long	66°12'19"	93°9'14"
<i>West Plains Cache</i>		
UTM (Nad83 z15)	479650	7334330
Lat/Long	66°7'43"	93°27'2"

## 2.1 BUILDINGS AND STRUCTURES

This section describes all infrastructure including buildings, and machinery, as well as all potential aircraft transportation equipment at NCG's main camp, Hayes Camp and Three Bluffs Drill Grid.

### Hayes Camp and Three Bluffs Drill Grid Infrastructure

Table 2a. Structures and Infrastructure currently permitted, approved and onsite

Quantity	Make	Description	Fuel Type
2	All Weather Shelters	Quonset (100'x40')	N/A
1	MTH Housing	Kitchen Unit (10'x8'x40')	N/A
1	MTH Housing	Washcar Unit (10'x8'x40')	N/A
1	MTH Housing	Washcar/Open Room Unit (10'x8'x40')	N/A
30	Custom built	12'x14' sleeping tent	Diesel
1	Custom built	12'x14' medical tent	Diesel
1	Custom built	12'x14' food storage tent	Diesel
1	Custom built	12'x24' Management office	Diesel
1	Custom built	12'x28' Geology office	Diesel
1	Custom built	12'x14' Logistics office	Diesel
1	Custom built	12'x28' Camp workshop	Diesel
1	Custom built	12'x28' Camp dry	Diesel
1	Custom built	12'x28' Drillers dry	Diesel
1	Custom built	12'x40' Kitchen/dining	Diesel
1	Custom built	12'x60' Core processing tent	Diesel
1	Weatherhaven	12'x14' Storage weatherhaven	Diesel
4	Washroom	4'x4' Pacto unit	N/A
4	Sea container	8'x8'x20' sea container	N/A
1	Sanitherm	Internal Membrane Waste Water Treatment System	N/A
2	Enviro	35k litre double walled fuel tanks	Diesel
2	CAT	XQ 230 230k Generators	
1	Ketek/Westland	CY2050-CA incinerator	N/A
1	Tidy Tank	500 litre double walled fuel tank - Incinerator	Diesel

Table 2b. Structures and Infrastructure currently permitted, approved but yet to be moved to site

Quantity	Make	Description	Fuel Type
2	Enviro	Skid mounted 35k litre double walled fuel tanks	Diesel
2		Explosive Magazines (Sea Cans)	

Table 3a. Vehicle, Heavy Equipment currently permitted, approved and onsite

Quantity	Make	Year	Description	Fuel Type
1	Caterpillar	2002	140H Grader	Diesel
1	Caterpillar	2011	289C Skid Steer Loader	Diesel
1	Caterpillar	2008	320 DL RR Excavator	Diesel
1	Caterpillar	2007	730 Articulating Dump Truck	Diesel
1	Caterpillar	2005	CS563E Packer	Diesel
1	Caterpillar	2008	D6NLGP Dozer	Diesel
1	Caterpillar	2001	D6R XL PAT Dozer	Diesel
1	Caterpillar	unknown	IT 24 F Loader	Diesel
1	John Deere	unknown	640D Skidder	Diesel
1	Westpro	unknown	PCU1030 Portable Crushing Unit	Diesel
1	All Track AT80HD	2012	All track	Diesel
1	Dodge	1994	Ram 4x4 pickup	Diesel
1	Ford	2007	F450 4x4 Service Truck	Diesel
2	Hagglund BV206	1990	Hagglund BV206	Diesel
2	Kubota	2011	RTV1140P 4x4 ATV	Diesel
1	Magnum Pro	2010	MLT5080 Lighting Plant	Diesel
8	Polaris	2012	Polaris LXT 136 Snowmobile	Gasoline
2	Skidoo	2011	GTSP 55 Snow Machine	Gasoline
2	Skidoo	2011	Skandic Wide Track 550 Snow machine	Gasoline
5	Yamaha	various	Bravo Snow Machine (Black)	Gasoline
1	GMC	1994	Sierra 4x4 pickup	Gasoline

Table 3b. Large Equipment currently permitted and approved but yet to be moved to site

Quantity	Make	Year	Description	Fuel Type
1			Screening Plant	
1			Fuel Services Truck	
1	Caterpillar		730 Articulating Dump Truck	
1			Blasting Mini Rig	

Table 4a. Diamond and RC Drilling Equipment currently permitted, approved and onsite.

Quantity	Make	Year	Description	Fuel
5	Irving Machine	2012	Drill shack 1	N/A
5	Irving Machine	2012	Rod Sloop 1	N/A
5	Irving Machine	2012	Pump Shack 1	N/A
5	Zinex	various	A5 B20 Core Drill	Diesel
	Miscellaneous		Drill spares/pumps/parts	
2	Northspan	various	Super Hornet Reverse Circulation drills	Diesel
2	CAT	2004	XQ80 80k Generators	Diesel
2	CAT	2009	XQ60 60k Generators	Diesel
2	Enviro		2000l Double walled Fuel Tanks	Diesel
1	Drill water system	2011	Pumping station, insulated pipeline, water storage tanks, boiler	Diesel

Table 4b. Diamond and RC Drilling Equipment currently permitted and approved but yet to be moved to site.

Quantity	Make	Year	Description	Fuel
2	Zinex	various	A5 B20 Core Drill and pump shacks	Diesel

Table 5. Air Transport Equipment

Type	Make	Description	Fuel
Fixed Wing	de Havilland	DHC-6 Turbo Otter	Diesel/Jet turbine
Fixed Wing	de Havilland	DHC-6 Twin Otter	Diesel/Jet turbine
Fixed Wing	de Havilland	DHC-5 Buffalo or similar	Jet turbine
Fixed Wing	Lockheed	C130 Hercules	Jet turbine
Fixed Wing	Boeing	737-200	Jet turbine
Fixed Wing	Convair	580	Jet turbine
Helicopter	Bell	206LR/L3/L4 H	Jet turbine
Helicopter	Airstar	B2	Jet turbine

## 2.2 FUEL STORAGE

The fuel storage monitoring program is detailed in Section 6 of this plan and in more detail in the Fuel Management Plan.

All fuels, such as diesel, Jet A/B and gasoline, are stored in 205 litre (45 gal) metal drums. In 2011 two 35,000 litre double walled enviro-tanks were installed onsite. These enviro-tanks will be housed such that all fittings, pipes, etc. are within secondary containment. Propane is stored in standard 100 lb. tanks.

All drummed fuel is stored within secondary containment. Fuel caches are stored in secondary containment, consisting of heavy plastic “instaberm’s”. There are two caches located at Hayes Camp, and three at the Three Bluffs Drill Grid. Drummed fuel that is being used is stored on spill trays and/or within completely enclosed “houses”. These “houses” are used for fuel drums that are connected to the stoves in the tents. They protect the drums from the elements, and prevent storm water and snow from building up within the secondary containment.

## 3.0 PETROLEUM & CHEMICAL STORAGE AND INVENTORY

The hazardous materials stored on site consist of the following substances:

- P-50 diesel,
- Jet a and/or jet b turbo fuel,
- Gasoline,
- Grease (mechanical lubricants),
- Hydraulic oil,
- Engine oil,
- Waste oil (awaiting removal from camp for proper disposal),
- Propane,
- Other materials potentially hazardous to the safety of personnel and the environment



The Material Safety Data Sheets (MSDS) for the hazardous materials stored at the exploration camp can be found in Appendix 2.

All hazardous materials/supplies are flown into, and out of sites. A Waste Manifest will accompany the movement of all hazardous wastes.

### 3.1 PETROLEUM PRODUCT TRANSFER

Manual, electric and engine powered pumps, along with appropriate filtration devices, may be used for the transfer of petroleum products from their storage drums to their end-use fuel tanks. Cigarette smoking, sparks, open flames and any other potential ignition sources are prohibited from any fuel storage and fuel transfer site at all times. As a general guideline, all equipment is to be turned off during refueling.

Secondary containment is used in transfer areas and a spill kit is located proximal to these areas.

### 3.2 REMOTE LOCATION STORAGE AND HANDLING PROCEDURES

At times, North Country Gold Corp. may establish temporary remote fuel caches for seasonal company use. Typically these caches would consist of 19 drums or less comprising Jet fuel and/or P-50. These remote fuel caches will be in accordance with CSA approved methods of storage of drummed product, and are very temporary most often used to support field activities further afield from the camps and camp fuel caches. A spill kit will be located at each fuel cache. As well, the helicopter carries additional absorbent pads.

## 4.0 RISK ASSESSMENT AND MITIGATION OF RISK

There are a number of risks associated with the use of hazardous materials such as drummed fuel, as well as the vehicles and equipment that use them. Table 6 summarizes potential risks, and ways to control, mitigate and minimize such risks.

Table 6. List of potential spill risks and solutions

Product / Item	Possible Risk	Mitigation of Risk
Drummed product: <ul style="list-style-type: none"><li>- Jet A or B</li><li>- Diesel</li><li>- Gasoline</li><li>- Waste Fuel and Oil</li></ul>	<ul style="list-style-type: none"><li>- Leaks or ruptures to drums may occur</li></ul>	<ul style="list-style-type: none"><li>- Regular inspection of drums.</li><li>- Keep drums in berms to avoid any potential leakages from contaminating soil/environment</li></ul>
Fuel cylinders: <ul style="list-style-type: none"><li>- Propane</li></ul>	<ul style="list-style-type: none"><li>- Leaks may occur at the valves</li></ul>	<ul style="list-style-type: none"><li>- Regular inspection of cylinders to ensure valves are closed</li><li>- All cylinders are secured at all times</li></ul>
Vehicles and equipment: <ul style="list-style-type: none"><li>- Wheeled and tracked vehicles</li><li>- Aircraft</li><li>- Snowmobiles</li><li>- Generators</li></ul>	<ul style="list-style-type: none"><li>- Leaking or dripping fuels and oils</li></ul>	<ul style="list-style-type: none"><li>- Regular inspection for malfunctions, impact damage</li><li>- Regular maintenance</li><li>- Proper storage: All vehicles and heavy machinery to be kept in Quanset 1, which is lined with impermeable Layfield</li></ul>

- Pumps		GeoLiner - Have designated, controlled fueling station for vehicle
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Regular inspection and maintenance in accordance with recognized and accepted standard practices at all camps and fuel caches, reduces risks associated with the categories listed above. Large fuel caches of 20 drums or more will be inspected daily.

Spill response training is provided to all personnel with particular attention to those personnel who handle fuels and other petroleum products. This training will include a presentation, "mock" spill, review of spill kit contents and their use and reporting.

Spill Kits will be located at all camps, fuel caches and drill shacks. A description of contents is listed in Section 7.0.

## 5.0 RESPONDING TO FAILURES AND SPILLS

In the case of any spill or other environmental emergency, it is necessary to react in the most immediate, safe, and environmentally responsible manner. No spill or incident is so minor that it can be ignored and every spill must be reported internally, with Table 7 indicating the quantities which must be reported to government agencies, particularly the 24-hour Spill Line. Appropriate spill reporting forms are detailed in Appendix 3.

Table 7. Spill reporting quantities

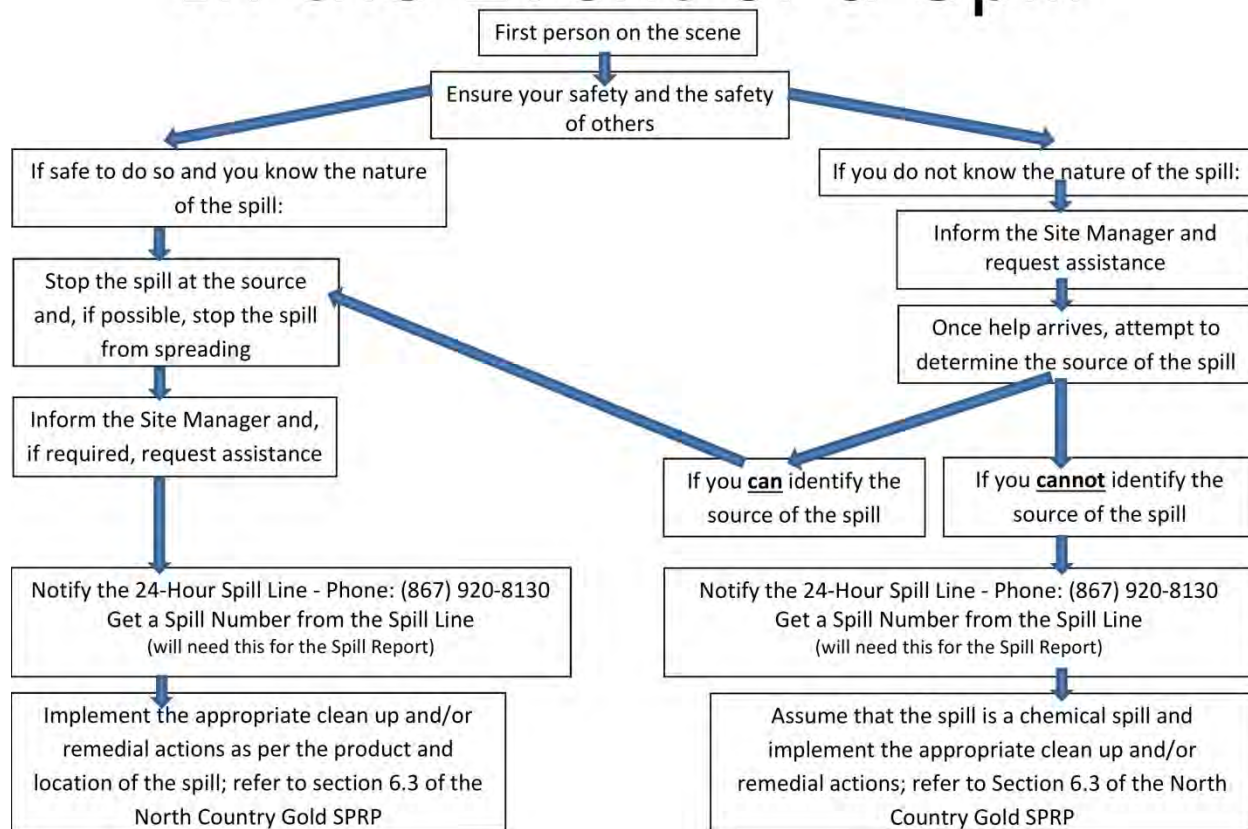
Substance	TDG Class	Reportable Amount
Explosives	1	Any amount
Compressed gas (flammable)	2.1	Any amount of gas from containers with a capacity greater than 100 L
Compressed gas (non-corrosive, non-flammable)	2.2	Any amount of gas from containers with a capacity greater than 100 L
Compressed gas (toxic)	2.3	Any amount
Compressed gas (corrosive)	2.4	Any amount
Flammable liquid	3	100 L
Flammable solid	4.1	25 kg
Spontaneously combustible solids	4.2	25 kg
Water reactant solids	4.3	25 kg
Oxidizing substances	5.1	50 L or 50 kg
Organic Peroxides	5.2	1 L or 1 kg
Poisonous substances	6.1	5 L or 5 kg
Infectious substances	6.2	Any amount
Radioactive	7	Any amount
Corrosive substances	8	5 L or 5 kg
Miscellaneous products or substances excluding PCB mixtures	9.1	50 L or 50 kg
PCB mixtures of 5 or more parts per million	9.1	0.5 L or 0.5 kg
Environmentally hazardous	9.2	1 L or 1 kg
Dangerous wastes	9.3	5 L or 5 kg
None	None	Any amount

## 5.1 BASIC STEPS

The basic steps of the response plan are as follows:

1. Ensure the safety of all persons at all times.
2. Identify and find the spill substance and its source, and, if possible, stop the process or shut off the source.
3. Inform your supervisor as soon as it is possible and safe to do so. Complete a Spill Report form, as found in Appendix 3.
4. Contain the spill or environmental hazard, as per its nature.
5. Implement any necessary cleanup and/or remedial action

# In the Event of a Spill



## 5.2 CHAIN OF COMMAND

1. Notify your immediate supervisor of any spill.
2. Fill out Spill Report form and submit to your supervisor.
3. Supervisor will inform the Project Manager, (Simeon Robinson, (780) 616-9459) and submit Spill Report form.
4. If the spill is above the reportable quantities (Table 7), the Project Manager, or PM-appointed delegate will notify:
  - a. 24-Hour Spill Line at (867) 920-8130 (Fax: (867) 873-6924)
  - b. AANDC Water Resources Officer in Nunavut at (867) 975-4548
  - c. Environment Canada at (867) 975-4644

## 5.3 EMERGENCY CONTACT LIST - SPILL REPORTING AND RESPONSE

CONTACT	TELEPHONE NUMBER
24-Hour Spill Line	(867) 920-8130
NCG, Simeon Robinson, Project Manager	(780) 616-9459
NCG, Peter Kleespies	(780) 966-6638
AANDC Water Resource Officer, Iqaluit	(867) 975-4548
Environment Canada	(867) 975-4644 24hr page: (867) 766-3737
Government of Nunavut Department of Environment	(867) 975-5910
Kitikmeot Inuit Association	(867) 983-2458
Department of Fisheries and Oceans (DFO)	(867) 979-8007
Nunavut Water Board	(867) 360-6338
Rankin Inlet RCMP	(867) 645-0123
Yellowknife Fire Department	(867) 873-2222
Stanton Regional Hospital – Yellowknife	(867) 920-4111
Discovery Mining Services	(867) 920-4600
Hayes Camp Manager	24 hour contact number **

\*\* This phone number will be provided by email each year when the camp is re-opened and the phone number is established.

## 6.0 TAKING ACTION

### 6.1 PREVENTATIVE MEASURES

The following actions illustrate a proactive approach to environmental stewardship. In addition, these actions minimize the potential for spills during fuel handling, transfer and storage:

1. Fuel transfer hoses with “cam lock” mechanisms are used.
2. Carefully monitor fuel content in the receiving vessel during transfer. Always have additional absorbent pads on hand while transferring fuel.
3. Clean up drips and minor spills immediately.
4. Regularly inspect drums, tanks and hoses for leaks or potential to leak and for proper storage. Daily Fuel reports are detailed in Appendix 4 and should be completed daily upon inspection and filed with the operations manager.
5. Create fuel caches in natural depressions that are located a minimum of 31 metres from the normal high-water mark of any water body.
6. Train personnel, especially those who will be operators, in proper fuel handling and spill response procedures.

North Country Gold will support the following general principles for spill prevention:

- Provide up to date and accessible Material Safety Data Sheets (MSDS) for all hazardous materials;
- Regularly inspect fuel/chemical storage areas and maintain on site the records of the inspections;
- Provide training for with respect to approved procedures for handling hazardous materials, and procedures to clean up spills;
- Encourage workers to take reasonable measures to prevent spills;
- Keep drums/containers sealed or closed when not in use;
- Keep storage areas secure from unauthorized access;
- Segregate incompatible materials;
- Ensure chemical storage areas are adequately protected from weather and physical damage, and;
- Provide adequate spill response materials at storage areas.

#### 6.1.2 RESPONSIBILITIES DURING TRANSPORT

##### Shipper:

- Ensures proper loading, restraint, containment and documentation, which complies with TDG guidelines
- Ensures that goods are classified and labeled appropriately. Provide placards if required
- Ensures safety at all times
- Ensures proper communication with carrier

- Ensure that waste manifests accompany all hazardous waste shipments

Carrier:

- Supervises and ensures proper loading, restraint, containment and documentation which comply with all TDG regulations
- Ensures correct volumes for transport, attach placards if necessary, maintains or replaces safety marks
- Checks and delivers TDG manifest to receiver
- Ensures safety of all personnel and equipment

Receiver:

- Supervises unloading procedures
- Complies with TDG guidelines
- Ensures safety of containment facilities
- Ensures maintenance of all pumps and loading/unloading equipment on site
- Provides on-site emergency communications (telephone, radio)
- Completes regular site inspections of storages facilities
- Records all shipment manifests
- Keeps on-site inventory of all dangerous goods
- Maintains safety procedures at all times

On-Site Coordinator:

- Supervises and organizes spill containment equipment and personnel
- Reports to internal and external parties
- Ensures proper safety equipment is available
- Notifies all personnel of current hazards
- Provides adequate training for safety and materials handling
- Maintains proper safety procedures at all times
- Must be compliant with all TDG guidelines

## 6.2 MITIGATIVE MEASURES

1. First steps to take when a spill occurs:
  - Ensure your own safety and that of others around you, beginning with those nearest to the scene.
  - Control danger to human life, if necessary.
  - Identify the source of the spill.
  - Notify your supervisor, request assistance if needed.
  - Assess whether or not the spill can be readily stopped.
  - Contain or stop the spill at the source.
2. Secondary steps to take:
  - Determine status of the spill event
  - If necessary, pump fuel from a damaged and/or leaking tank or drum into a refuge container
  - Notify the 24-hour Spill Report Line
  - Complete and Fax a copy of the Spill Report Form (Appendix 3).
  - Notify permitting authorities.
  - If possible, resume cleanup and containment.

## 6.3 SPILL RESPONSE ACTIONS

### **DIESEL FUEL, HYDRAULIC OIL, AND LUBRICATING OIL**

Take action only if safety permits – stop the source flow if safe to do so and eliminate all ignition sources. Never smoke when dealing with these types of spills.

#### *On Land*

- Build a containment berm using soil material or snow and place a plastic tarp at the foot of the berm for easy capture of the spill after all vapours have dissipated.
- Remove the spill by using absorbent pads or excavating the soil, gravel or snow.
- Remove spill splashed on vegetation using particulate absorbent material.
- Commence with the removal of any contaminate soil, gravel, or vegetation.
- Place contaminated material into drums for shipping off site.

#### *On Muskeg*

- Do not deploy personnel and equipment on marsh or vegetation.
- Remove pooled oil with sorbent pads and/or skimmer.
- Flush with low pressure water to herd oil to collection point.
- Burn only in localized areas, e.g., trenches, piles or windrows.
- Do not burn if root systems can be damaged (low water table).
- Minimize damage caused by equipment and excavation.

#### *On Water*

- Contain spill as close to release point as possible.
- Use containment boom to capture spill for recovery after vapours have dissipated.
- Use absorbent pads to capture small spills.
- Use skimmer for larger spills.

#### *On Ice and Snow*

- Build a containment berm around spill using snow.
- Remove spill using absorbent pads or particulate sorbent material.
- The contaminated ice and snow must be scraped and shovelled into plastic buckets with lids, 205 litre drums, and/or polypropylene bags.

#### *Storage and Transfer*

All contaminated water, ice, snow, soil, and clean up supplies will be stored in closed, labelled containers. All containers will be stored in a well ventilated area away from incompatible materials.

#### *Disposal*

Any contaminated material will be shipped from site, in appropriate containment, to an appropriate and approved facility. The DOE monitors the movement of hazardous wastes from generators, carriers to receivers, through a tracking document (Waste Manifest). A Waste Manifest will accompany all movements. North Country Gold is a registered waste generator.



## **GASOLINE AND JET B AVIATION FUEL**

Take action only if safety permits – stop the source flow if safe to do so and eliminate all ignition sources. Never smoke when dealing with these types of spills.

### *On Land*

- Build a containment berm using soil material or snow and place a plastic tarp at the foot of the berm for easy capture of the spill after all vapours have dissipated.
- Remove the spill by using absorbent pads or excavating the soil, gravel or snow.
- Remove spill splashed on vegetation using particulate absorbent material.
- Commence with the removal of any contaminate soil, gravel, or vegetation.
- Place contaminated material into drums for shipping off site.

### *On Muskeg*

- Do not deploy personnel and equipment on marsh or vegetation.
- Remove pooled gasoline or Jet B with sorbent pads and/or skimmer.
- Flush with low pressure water to herd oil to collection point.
- On advice from regulatory agencies, burn only in localized areas, e.g., trenches, piles or windrows.
- Do not burn if root systems can be damaged (low water table).
- Minimize damage caused by equipment and excavation.

### *On Water*

- Contain spill as close to release point as possible.
- Use containment boom to capture spill for recovery after vapours have dissipated.
- Use absorbent pads to capture small spills.
- Use skimmer for larger spills.

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- Build a containment berm around spill using snow.
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### *Storage and Transfer*

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Any contaminated material will be shipped from site, in appropriate containment, to an appropriate and approved facility. The DOE monitors the movement of hazardous wastes from generators, carriers to receivers, through a tracking document (Waste Manifest). A Waste Manifest will accompany all movements. North Country Gold is a registered waste generator.

## PROPANE

Take action only if safety permits. Gases stored in cylinders can explode when ignited. Keep vehicles away from area. **Never smoke** when dealing with these types of spills.

### *On Land*

- Do not attempt to contain the propane release.

### *On Water*

- Do not attempt to contain the propane release.

### *On Ice and Snow*

- Do not attempt to contain the propane release.

### *General*

- It is not possible to contain vapours when released.
- Water spray can be used to knock down vapours if there is no chance of ignition.
- Small fires can be extinguished with dry chemical or CO<sub>2</sub>.
- Personnel should withdraw immediately from area unless a small leak is stopped immediately after it has been detected.
- If tanks are damaged, gas should be allowed to disperse and no recovery attempt should be made.
- Personnel should avoid touching release point on containers since frost forms very rapidly.
- Keep away from tank ends.

### *Storage and Transfer*

- It is not possible to contain vapours when released.

### *Disposal*

Any contaminated material will be shipped from site, in appropriate containment, to an appropriate and approved facility. The DOE monitors the movement of hazardous wastes from generators, carriers to receivers, through a tracking document (Waste Manifest). A Waste Manifest will accompany all movements. North Country Gold is a registered waste generator.

## CHEMICALS

Take action only if safety permits. Keep vehicles away from area. Assess the hazard of the spilled material. Refer to the MSDS sheets now. **Never smoke** when dealing with these types of spills.

Members of the emergency response team who might be susceptible in certain situations, (such as asthmatics, where fumes or airborne particles are evident), should be replaced with alternates.

1. Assemble the necessary safety equipment before response (e.g. Latex or other protective gloves, goggles, or safety glasses, masks or breathers, etc.)
2. Apply absorbents to soak up liquids.
3. Place plastic sheeting over solid chemicals, such as dusts and powders, to prevent their disbursement by wind or investigation by birds or other mammals.
4. Neutralize acids or caustics. Place spilled material and contaminated cleanup supplies in an empty refuge drum and seal for disposal.
5. Contact the 24-Hour Spill Line. Continue through the steps outlined in Section 5.

## 7.0 SPILL EQUIPMENT

NCG has installed high-density vinyl containment “insta-berms” at Hayes Camp for the main generator shed, the incinerator, the water pump (at the lake), the re-fueling area and approximately 20 individual berms for tent oil stove fuel drums. Fire extinguishers are provided in all the buildings, at the helicopter pads, the refueling area and the incinerator area, as well as any other area where flammable substances are stored and/or handled. Spill kits will be located at fuel caches, fueling stations, airstrip, and other locations where spills of hazardous substances could occur. All fuel caches will be stored within secondary containment.

### 7.1 SPILL KITS

Spill kits in bright blue or yellow 200 L containers include:

- Basic personal protective equipment including goggles and latex gloves,
- Absorbent materials including socks, pillows, pads and granular substances
- 50 sonic bonded pads 17"x19"x3/8"
- 4 socks 4' x 3" diameter
- 1 sphag sorb ¾ cu ft.
- 1 plug-it sealing compound 500 ml
- 1 pair nitrile gloves large
- 2 pillows 18"x18"
- Large 36"x52" lettered plastic bags for containing and transferring (for disposal) contaminated sorbent materials.

Also on-site are the following:

- 2 rolls of absorbent matting 38"x144'
- 2 packs (100's) of enviro matting 16"x20"
- 4 shovels (min)
- 6 (min) empty 45 gal. Drums for storing contaminated soil for disposal

Spill kits are located at the following locations: see also figure 1.

- Camp fuel cache
- Helicopter/fixed wing fuel cache
- Generator shack
- Core shack generator
- Quansets
- Workshop in camp
- Reconnaissance caches and active drill sites

Additional sorbent materials for use at refueling sites for stoves and furnaces throughout camp are stored in the storage shelter, and at the drillers' storage and repair tent. Containment booms, absorbent materials, and extra insta-berms for use in responding to any spills are located in the storage shelter at Hayes.

A checklist of the required items for each spill response kit or equipment storage area will be provided. Spill response supplies will be checked against the lists on a quarterly basis and any deficiencies remedied immediately. The checklists will be reviewed whenever new chemicals are added to on-site activities to ensure that relevant spill cleanup supplies are present. MSDS for all the chemicals present in the vicinity of the spill kit will be kept near the kits, and will be updated as necessary to ensure that all MSDS data are up to date. The expiry dates of the MSDS will be tracked for every chemical present on site to help identify and replace those that are about to expire. MSDS are provided by the chemical suppliers. (See Appendix 2 for sample MSDS).

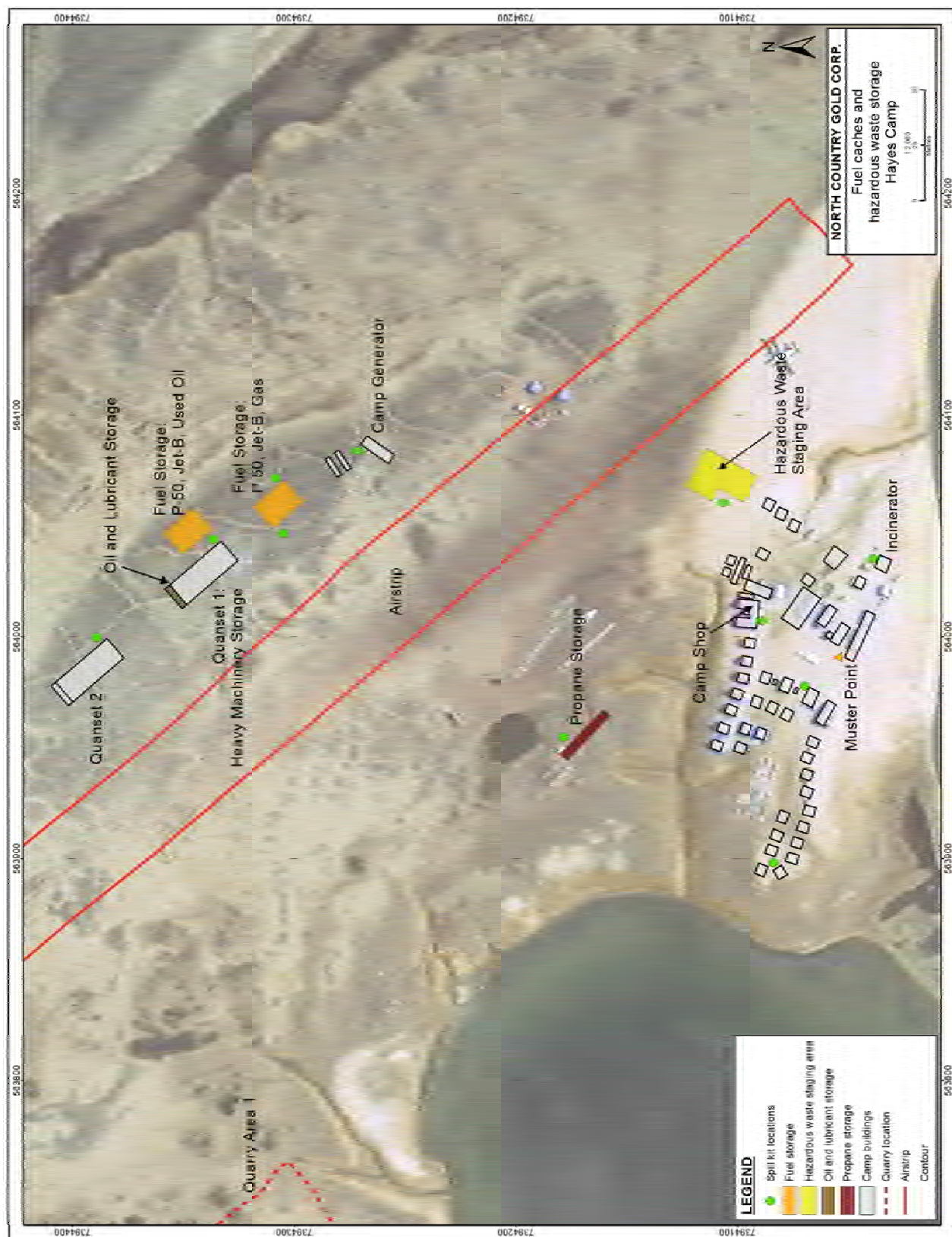


Figure 1. Spill kit locations.

## 8.0 TRAINING

To ensure the effectiveness of the Spill Prevention and Response Plan (SPRP), the Site Manager will be responsible for:

- Evaluating the training needs of all staff and contractors in terms of spill prevention and spill clean-up, and then ensuring that all staff are given appropriate required training;
- Completing an annual detailed review and update of the SPRP, with particular stress on the objectives and methods;
- Ensuring that the SPRP remains up-to-date, and that updated versions are distributed to the personnel on site, and external agencies, organizations and selected qualified external responders;
- Ensuring that updates to new emergency communications information (new phone numbers, changes in reporting structure, etc.) Are distributed as soon as the new information becomes available;
- Keeping a formal record of distribution and amendments to the SPRP;
- Ensuring that emergency spill response exercises and inspections are conducted at least semi-annually;
- Ensuring that the results of the regular inspections are used to improve spill response practices, and improve relevant plans accordingly.

### On-Site Personnel

A designated Emergency Response Team (ERT) consisting of on-site personnel will be established. North Country Gold Corp will ensure that the ERT is trained and present at all times. All members of the team will be trained and familiar with emergency and spill response resources, including their location and access, the SPRP, and appropriate emergency spill response methodologies. ERT training will be conducted annually to ensure that sufficient team members are present and to ensure that training is up to date.

The following training will be included:

- A review of the spill response plan and responsibilities of the ERT members;
- The nature, status, and location of fuel and chemical storage facilities;
- The on-site and off-site spill response equipment, and how to use it;
- Emergency contact lists;
- Desktop exercises of “worst case” scenarios, and;
- The likely causes and possible effects of spills.

All personnel and contractors at the project site will be familiar with spill reporting requirements. This will be ensured by conducting an orientation and training program on initial spill response procedures for all contractors and new personnel. Attendance will be tracked on site and re-training will be completed annually. Fuel-handling crews will be fully trained in the safe operation of the facilities, spill prevention techniques, and

initial spill response. These crews will be re-trained annually; retraining schedules will be tracked on site.

The Site Manager, will ensure that records of current training are retained, employee training expiry dates are tracked, and re-training is completed in a timely manner.

#### Contractors

Where pertinent, contractors will be required to have WHMIS, TDG and OSHA training as well as undergo site-specific health and safety training. Specialist responders will be expected to have technical environmental, health and safety training specific to their role as a qualified external contractor. NCG will request proof of qualifications for the areas external contractors are intended to support. All contractors working on site will be expected to complete site-specific training to ensure they are familiar with the risk and processes at the sites.

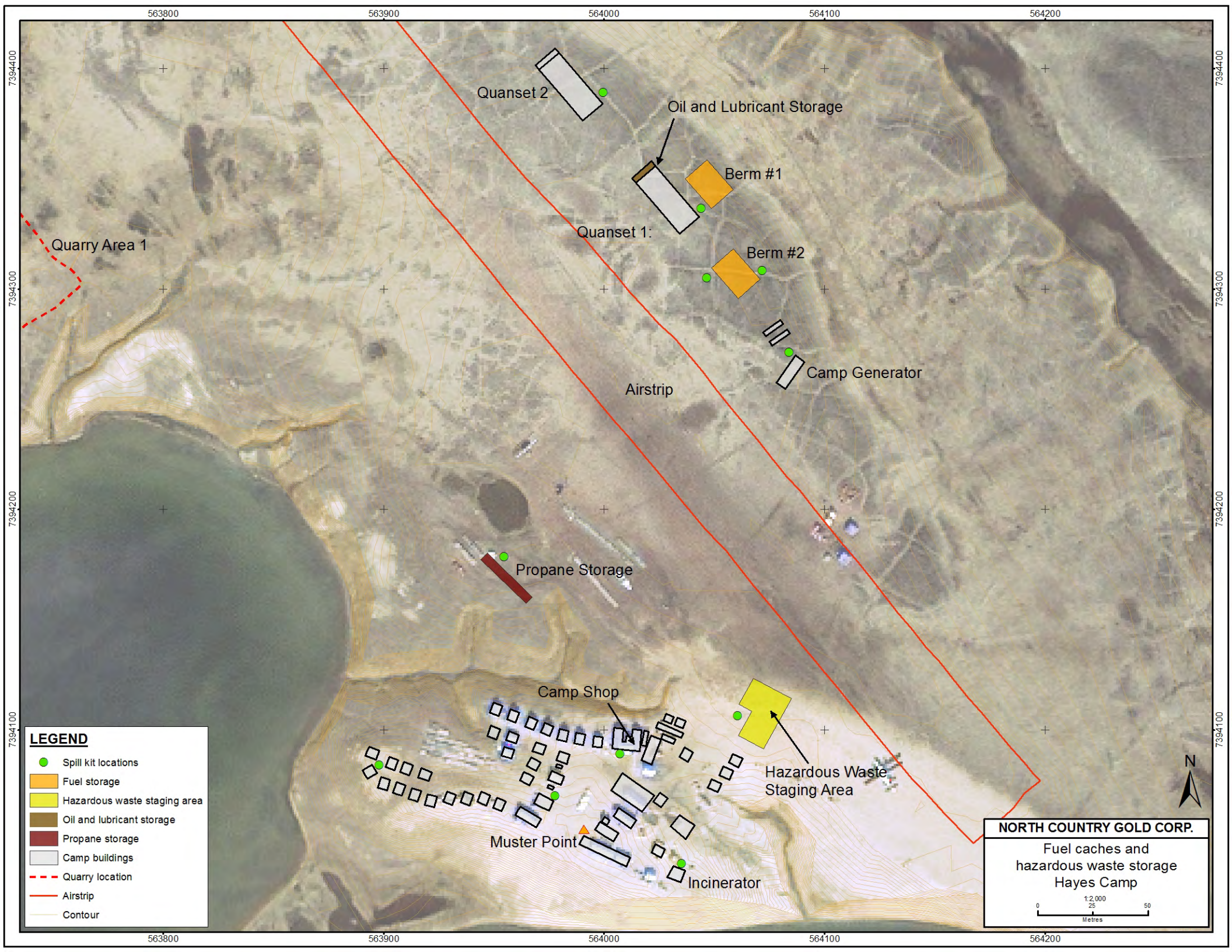
#### Practice Drills

North Country Gold is aware that without practice, no plan has value. At least one practice drill will be held per season to give personnel a chance to practice emergency response skills. Each practice will be evaluated and a report prepared with the objective of learning where gaps and deficiencies (either in skills or physical resources) exist, and in what areas more practice is required.

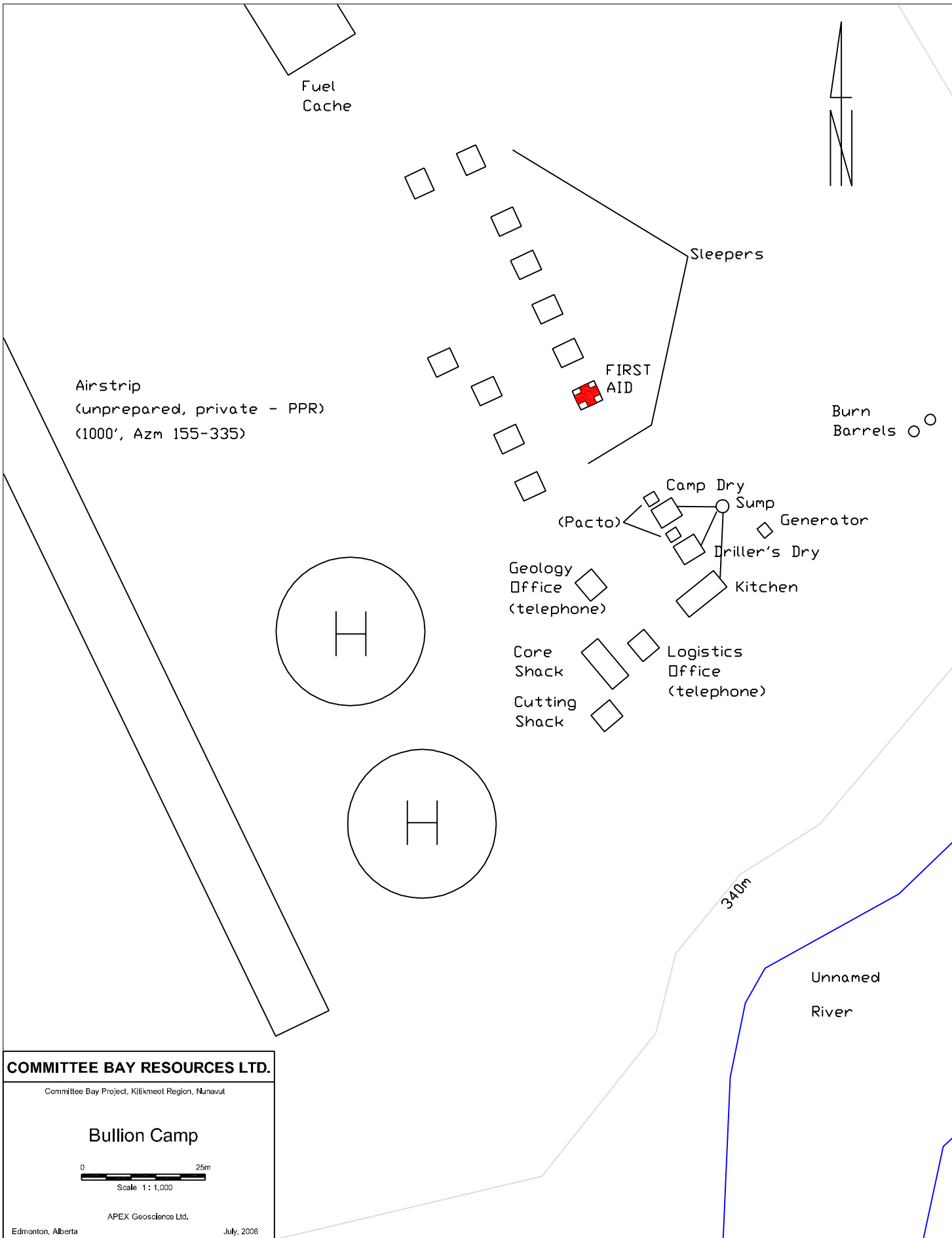


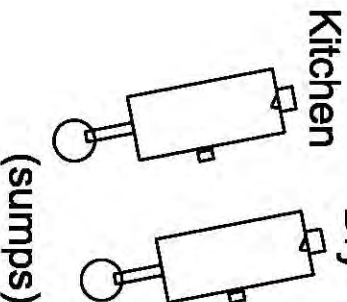
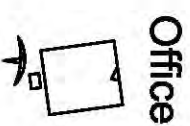
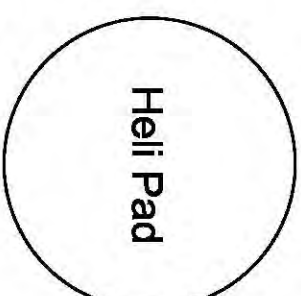
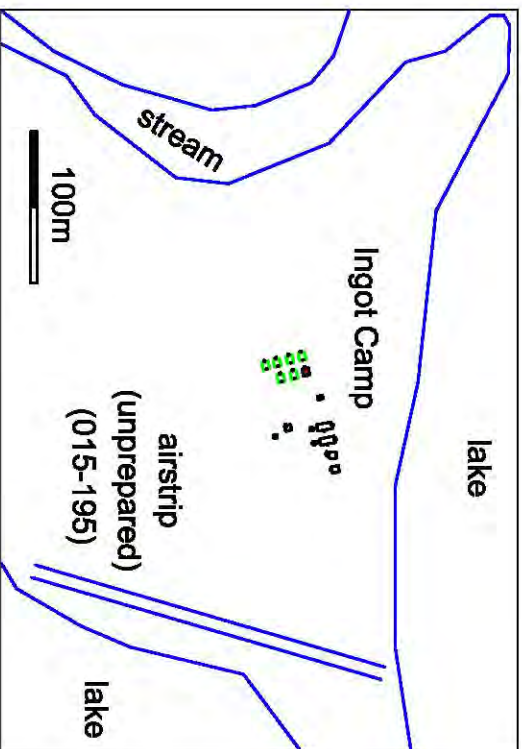
## Appendix I

### Camp Maps and Figures

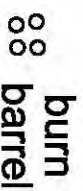
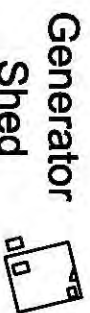
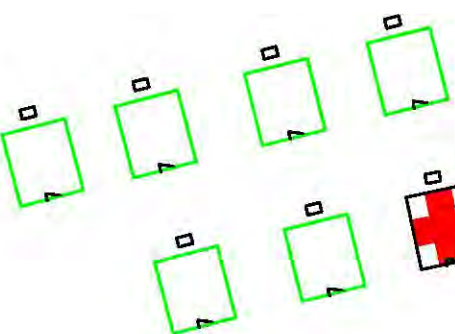








(sumps)



fuel  
drum

**COMMITTEE BAY RESOURCES LTD.**

Kitikmeot Region, Nunavut, Canada

**Ingot Camp**



APEx Geoscience Ltd.  
Edmonton, AB March 2007

Appendix 2

MSDS

CD provided

MSDS Name	UN #	TDG Class	WHMIS Class
DURON SYNTHETIC 0W-30	n/a	Not regulated	Not controlled
2-CYCLE MOTOR OIL	n/a	Not regulated	Not controlled
15W40 MOTOR OIL	n/a	Not regulated	Not controlled
550X POLYMER	n/a	Not regulated	Not controlled
ANTIFREEZE	n/a	Not regulated	Not controlled
AUTOMATIC TRANSMISSION FLUID	n/a	Not regulated	Not controlled
AVIATION GASOLINE	UN1203	3	B-2, D-2B
BARIMOL HEAVY GREASE	n/a	Not regulated	Not controlled
BIG BEAR ROD GREASE	n/a	Not regulated	Not controlled
BLEACH	UN1791	8	E
BRAKE FLUID	n/a	Not regulated	D-2, B
BUTANE	UN1011	2.1	A, B-1
CALCIUM CHLORIDE	n/a	Not regulated	Not controlled
DIESEL	UN1202	3	B-3, D-2B
DIESEL FUEL CONDITIONER	UN1993	3	B2, D2B, D2A
DRILL ROD HEAVY GREASE	n/a	Not regulated	Not controlled
DURATRAN XL	n/a	Not regulated	Not controlled
FAST ORANGE	n/a	Not regulated	Not controlled
FLUID OILS	n/a	Not regulated	Not controlled
FUEL	UN1203	3	B-2, D-2B
FUEL OIL	UN1202	3	B-3, D-2B
GASLINE ANTIFREEZE	UN1219	3	B-2, D-2B
GASOLINE	UN1203	3	B-2, D-2A
G-STOP	n/a	Not regulated	Not controlled
HCl	UN1789	8	D-2A, E
HELIUM COMPRESSED	UN1046	2.2	A
JETB	UN1863	3	B-2, D-2A, D-2B
KEROSENE	UN1223	3	B-3, D-2B
LINSEED SOAP	n/a	Not regulated	Not controlled
METHL HYDRATE	UN1230	3, 6.1	B-2, D-1B, D-2A, D-2B
OFF BUG SPRAY	UN1950	2.1	Not controlled
OIL GATOR	n/a	Not regulated	Not controlled
PALMOLIVE DISH SOAP	n/a	Not regulated	Not controlled
POLY DRILL	n/a	Not regulated	Not controlled
POWER STEERING FLUID	n/a	Not regulated	Not controlled
PROPANE	UN1075	2.1	A, B-1
PURELL HAND SANITIZER	UN1170	3	B
STOVE OIL	UN1202	3	B-3, D-2B
Z-50	n/a	Not regulated	Not controlled

## Appendix 3

### Spill Report Forms



Canada

# NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR		REPORT TIME		<input type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
	OCCURRENCE DATE: MONTH – DAY – YEAR		OCCURRENCE TIME			
C	LAND USE PERMIT NUMBER (IF APPLICABLE)			WATER LICENCE NUMBER (IF APPLICABLE)		
	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION				REGION <input type="checkbox"/> NWT <input type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN	
E	LATITUDE			LONGITUDE		
	DEGREES	MINUTES	SECONDS	DEGREES	MINUTES	SECONDS
F	RESPONSIBLE PARTY OR VESSEL NAME		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION			
	ANY CONTRACTOR INVOLVED		CONTRACTOR ADDRESS OR OFFICE LOCATION			
H	PRODUCT SPILLED		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER		
	SECOND PRODUCT SPILLED (IF APPLICABLE)		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER		
I	SPILL SOURCE		SPILL CAUSE		AREA OF CONTAMINATION IN SQUARE METRES	
	FACTORS AFFECTING SPILL OR RECOVERY		DESCRIBE ANY ASSISTANCE REQUIRED		HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT	
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS					
L	REPORTED TO SPILL LINE BY	POSITION	EMPLOYER	LOCATION CALLING FROM	TELEPHONE	
	ANY ALTERNATE CONTACT	POSITION	EMPLOYER	ALTERNATE CONTACT LOCATION	ALTERNATE TELEPHONE	

## REPORT LINE USE ONLY

N	RECEIVED AT SPILL LINE BY	POSITION	EMPLOYER	LOCATION CALLED	REPORT LINE NUMBER
		STATION OPERATOR		YELLOWKNIFE, NT	(867) 920-8130
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS	
LEAD AGENCY					
FIRST SUPPORT AGENCY					
SECOND SUPPORT AGENCY					
THIRD SUPPORT AGENCY					



# Spill Report

*Oil, gasoline, chemicals and other hazardous materials*



Report Date: \_\_\_\_\_

Report Time: \_\_\_\_\_

Spill Date: \_\_\_\_\_

Spill Time: \_\_\_\_\_

Location of Spill: *(Include description and coordinates)*

---

---

Responsible Party:

---

Product Spilled:

Quantity: *(Litres)*

---

Spill Source:

---

Spill Cause:

---

Area of Contamination: *(m x m x depth)*

---

---

Did any contaminant enter a water source?

Yes ☐

No ☐

If yes, explain where

---

Immediate actions taken to address spill:

---

---

---

Additional Information:

---

---

---

Reported by: \_\_\_\_\_

Date: \_\_\_\_\_

## Remediation Plan

*Oil, gasoline, chemicals and other hazardous materials*



Material Spilled: \_\_\_\_\_

Remediation action plan:

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Date remediation to be completed by:

Remediation completed by whom?:

Inspected by:

Approved:	Yes	
	No	

Comments:

---

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## Appendix 4

### Daily Fuel Inspection Report

# Fuel Inspection Report



Inspection completed by: \_\_\_\_\_ Signed: \_\_\_\_\_

Date: \_\_\_\_\_

**\*\*Any leaks/spills to be reported and rectified immediately\*\***

	Fuel type stored	Drums (Evidence of Leaks) <i>If yes, where?</i>	Drums (Evidence of Corrosion) <i>If yes, where?</i>	All fuel/oil in secondary containment	Condition of secondary containment <i>(Rips, holes, water etc.)</i>	Spill Kit/ Fire Extinguisher present	Appropriate Signage present	MSDS Sheets present	Comments
<b>HAYES CAMP</b>									
Berm #1									
Berm #2									
Berm #3									
Berm #4									
Fueling Station									
Quanset #1									
Quanset #2									
Bulk Tank									
Power Plant (Generators)									
General tent inspection									

<b>DRILL WATER SYSTEM</b>									
Pump									
Boiler									
East Tank									

<b>DRILL GRID</b>									
Berm #1									
Berm #2									
Berm #3									

*Additional Comments:* \_\_\_\_\_

# Fuel Inspection Report



**\*\*Any leaks/spills to be reported and rectified immediately\*\***

Inspection completed by: \_\_\_\_\_

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

	Fuel type stored	Drums (Evidence of Leaks) <i>If yes, where?</i>	Drums (Evidence of Corrosion) <i>If yes, where?</i>	All fuel/oil in secondary containment	Condition of secondary containment <i>(Rips, holes, water etc.)</i>	Spill Kit/ Fire Extinguisher present	Appropriate Signage present	MSDS Sheets present	Comments
<b>RANKIN INLET</b>									
Berm #1									

*Additional Comments:*

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